

Setting a PPPoEd Server

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This HOWTO is for setting a FreeBSD ppp over Ethernet server with pppoed

1. Compile kernel with this options:

```
options NETGRAPH
```

```
options NETGRAPH_PPPOE
```

```
options NETGRAPH_SOCKET
```

2. Edit /etc/rc.conf, add:

```
pppoed_enable="YES"
```

```
pppoed_flags="-d -P /var/run/pppoed.pid -a "server" -l "default" "
```

```
pppoed_interface="fxp1"
```

3. /etc/ppp/ppp.conf

default:

```
set log Chat Command
```

```
Phase
```

```
#turn on some logging. See man ppp.conf
```

```
enable
```

```
pap
```

```
#turn on chap and pap accounting
```

```
enable chap
```

```
allow mode
```

```
direct
```

```
#turn on ppp bridging
```

```
enable
```

```
proxy
```

```
#turn on ppp proxyarping (redundant of a
```

```
disable
```

```
ipv6cp
```

```
#we don't use ipv6, don't want the errors
```

```
set mru
```

```
1492
```

```
#set mru below 1500 (PPPoE MTU issue)
```

```
set mtu
```

```
1492
```

```
#set mtu below 1500 (PPPoE MTU issue)
```

```
set ifaddr 10.0.0.1 10.0.1.1-10.0.5.254
```

```
set speed sync
```

```
set timeout 0
```

```
enable lqr
```

```
accept dns
```

4. edit /etc/ppp/ppp.secret

```
username password
```

Reboot.

Hint:

You could configure ipfw firewall to deny any to any and then make a script (easy) for every ppp connection to add a rule in firewall to allow ip for that connection.

Valuable Advices:

- If you use different versions of windows boxes (not only xp) let enable pap and chap too

- If you want a user to be connected only once (so users cannot give username and passwords to others to use the same account) you must setup a radius server

(freeradius or radius-cistrion, from ports collection).

- If you have problems login in from windows box than set speed sync from /etc/ppp/ppp.conf might help you

- pppoe daemon consumes some cpu so a faster cpu is better, also for many users is better to have more ram (512 or 1024 MB)

- If you have problems stop your pppoe process (/etc/rc.d/pppoe stop) then launch pppoe with -Fd option instead -d, from command line to have pppoe in foreground to see errors.

- On a lan with many users I had a problem, i guess some of the clients had a misconfigured pppoe server so it keeps asking for connection to pppoe server, flooding, forking the pppoe daemon continuously. It is a patch that might solve this problem, I've read about it here: <http://lists.freebsd.org/pipermail/freebsd-hackers/2005-February/010136.html>, but could not find that patch.